

(FOR THE CANDIDATES ADMITTED DURING (NO. OF PAGES: 1)
THE ACADEMIC YEAR 2022-23 ONLY) SUBJECT CODE 22 PPS 2N1

NGM COLLEGE (AUTONOMOUS) POLLACHI

END-OF-SEMESTER EXAMINATIONS: MAY – 2023

M.Sc.-PHYSICS

MAXIMUM MARKS: 100

II SEMESTER

TIME: 3 HOURS

NON-MAJOR ELECTIVE PAPER-I

NON CONVENTIONAL ENERGY SOURCES

SECTION - A

(5 X 5 = 25 MARKS)

ANSWER ANY FIVE OF THE FOLLOWING QUESTIONS.

1. Discuss the nature of solar radiation at the earth surface. (K3)
2. Describe the construction and working of solar cooking. (K3)
3. Elaborate the basic components of a wind energy conversion system (WECS). (K3)
4. Explain closed cycle ocean thermal energy conversion (OTEC) system. (K3)
5. Explain the applications of Geothermal Energy. (K3)
6. List the advantages and disadvantages of geothermal energy. (K3)
7. Discuss the design, principle and operation of a fuel cell. (K3)
8. List the advantages and disadvantages of fuel cell. (K3)

SECTION - B

(5 X 15 = 75 MARKS)

ANSWER ANY FIVE OF THE FOLLOWING QUESTIONS.

9. Explain the physical principles of the conversion of solar radiation into heat. (K4)
10. Analyze the function of solar water heating with its construction. (K4)
11. Analyze the site selection for wind energy. (K4)
12. List the advantages and disadvantages of wind energy conversion system (WECS) (K4)
13. Explain open cycle ocean thermal energy conversion (OTEC) system. (K4)
14. Discuss the various types of geothermal sources. (K4)
15. Describe the classification of fuel cells. (K4)
16. Discuss the various types of fuel cells. (K4)
